



The Initial Valuation For

# Putnam County Soil and Water Conservation District

as of July 31, 2018



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April 25, 2019

Putnam County Soil and Water Conservation District  
Unionville, Missouri

Ladies and Gentlemen:

Submitted in this report are the results of the actuarial valuation prepared to determine the employer contribution rates required to support, for your employees, the benefits provided by the Missouri Local Government Employees Retirement System (LAGERS). This report contains the information needed to comply with Missouri State disclosure requirements regarding the adoption of LAGERS benefits by a political subdivision (Sections 105.660 - 106.685 RSMo). This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

This report was prepared at the request of the political subdivision and is intended for use by the political subdivision and those designated or approved by the political subdivision. This report may be provided to parties other than the political subdivision only in its entirety and only with the permission of the political subdivision. GRS is not responsible for unauthorized use of this report.

The contribution requirement for benefits likely to accrue as a result of the future service of your employees is described on pages 4 thru 11 as the current cost plus the disability cost. This contribution rate, expressed as a percent of active employee payroll, will depend on the benefit program adopted.

The contribution requirement to pay for benefits likely to result from service rendered by your employees before you join LAGERS is described on pages 4 thru 11 as the prior service cost. The value established for prior service is called the unfunded actuarial accrued liability (these amounts are further described in Appendix I). The prior service cost is the rate of contribution designed to pay for the unfunded actuarial accrued liability over a period of not more than 30 years.

Section 70.730 of the Revised Statutes of Missouri requires participating employers to contribute the current cost, disability cost, and prior service cost (the total employer cost as shown on pages 4 thru 11). These contributions are mandatory after official action has been taken to join the System.

The total annual dollar costs shown on pages 12 and 13 represent the dollar cost of each benefit program for a one year period based on the payroll reported for this actuarial valuation. In budgeting amounts for LAGERS contributions you should consider any changes in payroll which have been made since data was submitted for the valuation and any changes anticipated to be made before the end of the period for which you are preparing the budget.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of this report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

The computed contributions required for LAGERS participation will permit the System to continue to operate in accordance with the actuarial principles of level cost financing and the State law which governs LAGERS. This valuation assumed the ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our expertise and not performed. Summary provisions of the law as well as benefit illustrations can be found in Appendices III and IV.

Projections needed to comply with Missouri State disclosure requirements (Section 105.665 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision are available upon request from LAGERS.

Please note that this entire report must be available as public information for at least 45 calendar days prior to the date final official action is taken by your governing body to join the System. You may wish to make notice of this report in the official minutes of the next meeting of your governing body. This action would not be binding on your subdivision, yet would establish the beginning date of the 45 day waiting period.

In accordance with LAGERS Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System for a two year period from the date of this valuation which was July 31, 2018. The valuation was based on data furnished from your records concerning individual employees (see Appendix V).

This report includes risk commentary in Appendix VI, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

If you have any questions concerning this report or LAGERS in general, please contact the LAGERS office in Jefferson City.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the political subdivision as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the actuarial standards of practice issued by the Actuarial Standards Board, and with applicable statutes.

Mita D. Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuary is independent of the plan sponsor.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA



## Alternate Plan Provisions Affecting Employer Contribution Rates

The law governing LAGERS provides for either a contributory plan or a non-contributory plan, with benefits based on either a 5 year or 3 year Final Average Salary (FAS).

**Contributory Plan.** Under the contributory plan, each covered member contributes 4% of compensation to LAGERS. If an employee terminates before being eligible for an immediate benefit, the member's contributions, plus any interest credited to the member's individual account, are refunded upon request.

**Non-Contributory Plan.** Under the non-contributory plan, there is no individual employee contribution to the plan, no individual account maintained for each employee, and no refund paid to employees who terminate before being eligible for a benefit.

The law further provides for nine different benefit programs (benefit formula factors) and allows an employer to elect "rule of 80" eligibility for benefits. Under the rule of 80, employees are eligible for unreduced benefits at the earlier of (i) attainment of their minimum service retirement age or (ii) such time as their years of age plus years of LAGERS credited service equals 80.

In total this allows for 72 different combinations of benefit plans, giving employers considerable latitude in designing the retirement program which they feel best suits their particular situation.

The applicable combinations of these items may be changed from time to time, however, there are limitations on the frequency of changes. A more detailed description of plan provisions may be found in Appendix III of this report.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

### Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.70%	3.50%	0.20%	4.40%
L-3	General	0.90	5.00	0.30	6.20
LT-4(65)	General	0.70	4.20	0.20	5.10
LT-5(65)	General	1.00	5.50	0.30	6.80
L-7	General	1.10	6.40	0.30	7.80
LT-8(65)	General	1.20	6.70	0.30	8.20
L-12	General	1.40	7.80	0.40	9.60
LT-14(65)	General	1.40	8.00	0.40	9.80
L-6	General	1.60	9.20	0.50	11.30

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

### Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.70%	3.70%	0.20%	4.60%
L-3	General	0.90	5.20	0.30	6.40
LT-4(65)	General	0.80	4.50	0.20	5.50
LT-5(65)	General	1.00	5.80	0.30	7.10
L-7	General	1.20	6.70	0.30	8.20
LT-8(65)	General	1.20	7.00	0.30	8.50
L-12	General	1.40	8.10	0.40	9.90
LT-14(65)	General	1.40	8.30	0.40	10.10
L-6	General	1.60	9.60	0.50	11.70

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

### Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.90%	6.90%	0.20%	8.00%
L-3	General	1.10	8.40	0.30	9.80
LT-4(65)	General	1.00	7.60	0.20	8.80
LT-5(65)	General	1.20	8.90	0.30	10.40
L-7	General	1.40	9.80	0.30	11.50
LT-8(65)	General	1.40	10.20	0.30	11.90
L-12	General	1.60	11.30	0.40	13.30
LT-14(65)	General	1.60	11.50	0.40	13.50
L-6	General	1.80	12.80	0.50	15.10

\* Prior service credit was given for vesting purposes only.



# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

### Regular Retirement Eligibility

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.90%	7.10%	0.20%	8.20%
L-3	General	1.20	8.60	0.30	10.10
LT-4(65)	General	1.00	7.80	0.20	9.00
LT-5(65)	General	1.20	9.20	0.30	10.70
L-7	General	1.40	10.20	0.30	11.90
LT-8(65)	General	1.50	10.50	0.30	12.30
L-12	General	1.70	11.70	0.40	13.80
LT-14(65)	General	1.70	11.90	0.40	14.00
L-6	General	1.90	13.20	0.50	15.60

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

### Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.70%	3.70%	0.20%	4.60%
L-3	General	0.90	5.20	0.30	6.40
LT-4(65)	General	0.80	4.70	0.20	5.70
LT-5(65)	General	1.00	5.90	0.30	7.20
L-7	General	1.20	6.70	0.30	8.20
LT-8(65)	General	1.20	7.10	0.30	8.60
L-12	General	1.40	8.10	0.40	9.90
LT-14(65)	General	1.40	8.40	0.40	10.20
L-6	General	1.60	9.60	0.50	11.70

# The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Contributory Plan - 3 Year FAS) (4% member contributions are additional)

### Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			Total Employer Contribution Rate
		Prior Service Cost *	Current Cost	Disability Cost	
L-1	General	0.70%	3.90%	0.20%	4.80%
L-3	General	1.00	5.40	0.30	6.70
LT-4(65)	General	0.80	4.90	0.20	5.90
LT-5(65)	General	1.00	6.20	0.30	7.50
L-7	General	1.20	7.00	0.30	8.50
LT-8(65)	General	1.30	7.50	0.30	9.10
L-12	General	1.40	8.50	0.40	10.30
LT-14(65)	General	1.50	8.70	0.40	10.60
L-6	General	1.70	10.00	0.50	12.20

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\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS) (No member contributions)

### Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	0.90%	7.00%	0.20%	8.10%
L-3	General	1.20	8.60	0.30	10.10
LT-4(65)	General	1.00	8.00	0.20	9.20
LT-5(65)	General	1.20	9.30	0.30	10.80
L-7	General	1.40	10.10	0.30	11.80
LT-8(65)	General	1.50	10.60	0.30	12.40
L-12	General	1.60	11.60	0.40	13.60
LT-14(65)	General	1.70	11.90	0.40	14.00
L-6	General	1.90	13.20	0.50	15.60

# The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS) (No member contributions)

### Rule of 80 Retirement Eligibility#

Benefit Program	Employee Groups	Percents of Active Member Payroll			
		Prior Service Cost *	Current Cost	Disability Cost	Total Employer Contribution Rate
L-1	General	1.00%	7.30%	0.20%	8.50%
L-3	General	1.20	8.80	0.30	10.30
LT-4(65)	General	1.10	8.20	0.20	9.50
LT-5(65)	General	1.30	9.60	0.30	11.20
L-7	General	1.50	10.40	0.30	12.20
LT-8(65)	General	1.50	10.90	0.30	12.70
L-12	General	1.70	12.00	0.40	14.10
LT-14(65)	General	1.70	12.30	0.40	14.40
L-6	General	1.90	13.60	0.50	16.00

# The cost for the Rule of 80 provision is very dependent upon the age at hire of the employees. If hiring practices in the future differ from those of the past, the cost for this provision could increase or decrease. The cost shown is based on the age and service characteristics of the present group.

\* Prior service credit was given for vesting purposes only.

# Putnam County Soil and Water Conservation District

## Employer Contribution Dollars Regular Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

### Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 4,713
L-3	6,641
LT-4(65)	5,463
LT-5(65)	7,284
L-7	8,355
LT-8(65)	8,784
L-12	10,284
LT-14(65)	10,498
L-6	12,105

3 Year FAS	
Benefit Program	General
L-1	\$ 4,928
L-3	6,856
LT-4(65)	5,892
LT-5(65)	7,606
L-7	8,784
LT-8(65)	9,105
L-12	10,605
LT-14(65)	10,819
L-6	12,533

### Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 8,570
L-3	10,498
LT-4(65)	9,427
LT-5(65)	11,140
L-7	12,319
LT-8(65)	12,747
L-12	14,247
LT-14(65)	14,461
L-6	16,175

3 Year FAS	
Benefit Program	General
L-1	\$ 8,784
L-3	10,819
LT-4(65)	9,641
LT-5(65)	11,462
L-7	12,747
LT-8(65)	13,176
L-12	14,783
LT-14(65)	14,997
L-6	16,711

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

# Putnam County Soil and Water Conservation District

## Employer Contribution Dollars Rule of 80 Retirement Eligibility

Employer contributions are payable monthly, and each month's actual dollar contribution will be the contribution percent multiplied by the payroll during the month. If payroll during your first year of LAGERS participation equals the annual payroll reported for this valuation, the approximate employer dollar contribution for the year would be as follows:

### Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 4,928
L-3	6,856
LT-4(65)	6,106
LT-5(65)	7,713
L-7	8,784
LT-8(65)	9,212
L-12	10,605
LT-14(65)	10,926
L-6	12,533

3 Year FAS	
Benefit Program	General
L-1	\$ 5,142
L-3	7,177
LT-4(65)	6,320
LT-5(65)	8,034
L-7	9,105
LT-8(65)	9,748
L-12	11,033
LT-14(65)	11,355
L-6	13,069

### Non-Contributory Plan

5 Year FAS	
Benefit Program	General
L-1	\$ 8,677
L-3	10,819
LT-4(65)	9,855
LT-5(65)	11,569
L-7	12,640
LT-8(65)	13,283
L-12	14,568
LT-14(65)	14,997
L-6	16,711

3 Year FAS	
Benefit Program	General
L-1	\$ 9,105
L-3	11,033
LT-4(65)	10,176
LT-5(65)	11,997
L-7	13,069
LT-8(65)	13,604
L-12	15,104
LT-14(65)	15,425
L-6	17,139

PLEASE NOTE THAT THE ABOVE INFORMATION IS BASED ON THE PERSONNEL AND PAYROLL DATA SUBMITTED FOR THE ACTUARIAL VALUATION. IN BUDGETING AMOUNTS FOR LAGERS CONTRIBUTIONS YOU SHOULD CONSIDER ANY CHANGES WHICH HAVE BEEN MADE SINCE DATA WAS SUBMITTED FOR THE VALUATION AND ANY CHANGES ANTICIPATED TO BE MADE BEFORE THE END OF THE PERIOD FOR WHICH YOU ARE PREPARING THE BUDGET.

# Putnam County Soil and Water Conservation District

## Employees and Payroll Included in the Valuation

	General
Number of Employees	3
Annual Payroll	\$ 107,120

Information regarding the age and service characteristics of the employees is contained in Appendix V.



## **APPENDIX I**

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### **UNFUNDED ACTUARIAL ACCRUED LIABILITY**

## Unfunded Actuarial Accrued Liability (UAAL)

If the decision is made to join LAGERS the governing body also must decide how much credit to grant employees for their service before the membership date. The options are to cover 25%, 50%, 75% or 100% of prior service. The granting of prior service credit results in the establishment of an actuarial accrued liability. Because your political subdivision will not have established an asset balance with the System as of the membership date, the value established for prior service is an unfunded actuarial accrued liability.

The policy of the LAGERS Board of Trustees provides that unfunded liabilities are to be paid for by level percent of payroll contributions over a period of 30 years. The contribution rates shown on pages 4 through 11 as the "Prior Service Cost" are designed to pay for the applicable unfunded actuarial accrued liability. This procedure will allow your political subdivision to retire the unfunded actuarial accrued liability in an orderly fashion over a period of years without the need for an immediate large payment upon joining the System.

Should the governing body elect to grant credit for 100% of the employees' prior service, the unfunded actuarial accrued liability as of the date of this valuation would be as follows:

### Putnam County Soil and Water Conservation District

#### Regular Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 12,710	\$ 13,258	\$ 17,284	\$ 17,869
L-3	General	16,952	17,667	21,609	22,368
LT-4(65)	General	14,012	14,623	18,586	19,223
LT-5(65)	General	17,945	18,693	22,584	23,373
L-7	General	21,208	22,087	25,934	26,791
LT-8(65)	General	21,870	22,752	26,580	27,483
L-12	General	25,491	26,496	30,254	31,276
LT-14(65)	General	25,827	26,852	30,586	31,614
L-6	General	29,816	30,982	34,579	35,750

# Putnam County Soil and Water Conservation District

## Unfunded Actuarial Accrued Liability (UAAL)

### Rule of 80 Retirement Eligibility

Benefit Group	Employee Group	Contributory		Non-Contributory	
		UAAL (5 Year FAS)	UAAL (3 Year FAS)	UAAL (5 Year FAS)	UAAL (3 Year FAS)
L-1	General	\$ 13,149	\$ 13,711	\$ 17,692	\$ 18,284
L-3	General	17,500	18,232	22,109	22,873
LT-4(65)	General	15,020	15,663	19,568	20,222
LT-5(65)	General	18,929	19,702	23,517	24,321
L-7	General	21,854	22,762	26,525	27,428
LT-8(65)	General	22,800	23,731	27,463	28,421
L-12	General	26,243	27,284	30,955	32,006
LT-14(65)	General	26,730	27,782	31,428	32,503
L-6	General	30,667	31,866	35,388	36,575

## **APPENDIX II**

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### **SUMMARY OF FINANCIAL ASSUMPTIONS**

# Summary of Assumptions Used in Actuarial Valuations

## Assumptions Adopted by Board of Trustees After Consulting With Actuary

1. The investment return rate used in making the valuations was 7.25% per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of investment return in excess of the inflation rate. The price inflation rate used in making the valuations was 2.50% and the wage inflation rate used in making the valuations was 3.25%. The investment return rate translates to an assumed real rate of return over price inflation of 4.75% and over wage inflation of 4.00%. Adopted 2011 and 2016.
2. The healthy retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The disabled retiree mortality tables, for post-retirement mortality, used in evaluating allowances to be paid were the RP-2014 disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The pre-retirement mortality tables used were the RP-2014 employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. For both the post-retirement and pre-retirement tables, the base year for males was then established to be 2017. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to the above described tables. Adopted 2016.
3. The probabilities of withdrawal and disability from service, together with individual pay increase assumptions, are shown in Schedule 1. Adopted 2016.
4. The probabilities of retirement with an age and service allowance are shown in Schedule 2. Adopted 2016.
5. Post-retirement cost of living allowances are assumed to be 2.50% per year. Adopted 2016.
6. Total active member payroll is assumed to increase a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. In effect, this assumes no change in the number of active members per employer. Adopted 2016.
7. An individual entry-age actuarial cost method of valuation was used in determining age and service allowance actuarial liabilities and normal cost. Adopted 1986.
8. The data about persons now covered was furnished by the political subdivision. Although examined for general reasonableness, the data was not audited by us.

## Schedule 1.

### Separations From Active Employment (Not Including Death-In-Service) Before Age & Service Retirement and Individual Pay Increase Assumptions

		Percent of Active Members Separating Within Next Year							
Sample Ages	Years of Service	General Members				Police		Fire	
		Men		Women		Disability	Withdrawal	Disability	Withdrawal
All	0		19.00%		22.00%		18.00%		10.00%
	1		17.00		20.00		17.00		8.00
	2		15.00		17.00		16.00		7.00
	3		13.00		14.00		13.00		6.00
	4		11.00		13.00		12.00		6.00
25	5 & Over	0.09%	7.30	0.02%	10.80	0.10%	9.80	0.06%	5.00
30		0.12	6.50	0.03	8.90	0.11	7.80	0.10	4.00
35		0.15	5.00	0.06	7.40	0.16	6.10	0.23	2.80
40		0.21	3.70	0.10	5.70	0.22	4.40	0.35	2.20
45		0.30	3.00	0.16	4.20	0.34	3.20	0.56	1.80
50		0.44	2.40	0.24	3.30	0.53	1.80	0.85	1.00
55		0.68	1.80	0.34	2.50	0.88	1.00	1.31	0.50
60		1.02	1.00	0.48	1.20		0.00		0.00
65			0.00		0.00		0.00		0.00

Sample Ages	Percent Increase in Individual's Pay During Next Year	
	General & Police	Fire
25	6.55%	7.15%
30	5.75	6.05
35	5.25	5.15
40	4.75	4.45
45	4.25	4.15
50	3.85	3.85
55	3.65	3.65
60	3.55	3.25
65	3.25	3.25

## Schedule 2.

### Percent of Eligible Active Members Retiring Within Next Year Without Rule of 80 Eligibility

#### Early Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
55	3.00%	3.00%	50	2.50%	2.50%
56	3.00%	3.00%	51	2.50%	2.50%
57	3.00%	3.00%	52	2.50%	2.50%
58	3.00%	3.00%	53	2.50%	2.50%
59	3.00%	3.00%	54	2.50%	2.50%

#### Normal Retirement

Retirement Ages	General Members		Retirement Ages	Police	Fire
	Men	Women			
60	10%	10%	55	10%	13%
61	10	10	56	10	13
62	25	15	57	10	13
63	20	15	58	10	13
64	20	15	59	10	13
65	25	25	60	10	15
66	25	25	61	10	15
67	20	25	62	25	20
68	20	25	63	20	20
69	20	20	64	20	20
70	100	100	65	100	100

## Schedule 2. (Continued)

### Percent of Eligible Active Members Retiring Within Next Year With Rule of 80 Eligibility

Retirement Ages	General Members		Police	Fire
	Men	Women		
50	15%	15%	25%	25%
51	15	15	25	20
52	15	15	15	20
53	15	15	15	20
54	15	15	15	20
55	15	15	15	20
56	15	15	15	20
57	15	15	15	25
58	15	15	15	25
59	15	15	15	25
60	15	15	15	35
61	15	15	25	35
62	30	15	30	45
63	30	15	30	45
64	30	20	30	45
65	30	25	100	100
66	30	25		
67	30	25		
68	30	25		
69	30	25		
70	100	100		



## **APPENDIX III**

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### **SUMMARY OF LAGERS PROVISIONS**

# Missouri Local Government Employees Retirement System

## Brief Summary of LAGERS

### Benefits and Conditions Evaluated and/or Considered as of February 28, 2018

#### (Section references are to RSMo)

**Voluntary Retirement.** Sections 70.645 & 70.600. A member may retire with an age & service allowance after both (i) completing 5 years of credited service, and (ii) attaining the minimum service retirement age.

The minimum service retirement age is age 60 for a general employee and age 55 for a police or fire employee. Optionally, employers may also elect to provide for unreduced benefits for employees whose combination of years of age and years of service equals 80 or more.

**Final Average Salary.** Section 70.600. The average of a member's monthly compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) of credited service producing the highest monthly average, which period is contained within the 120 consecutive months of credited service immediately preceding retirement.

**Age & Service Allowance.** Section 70.655. The allowance, payable monthly for life, equals a specified percent of a member's final average salary multiplied by the number of years of credited service. Each employer elects the percent applicable to its members, from the following programs:

L-1 Benefit Program:	1.00% for life
L-3 Benefit Program:	1.25% for life
L-7 Benefit Program:	1.50% for life
L-12 Benefit Program:	1.75% for life
L-6 Benefit Program:	2.00% for life
LT-4(65) Benefit Program:	1.00% for life, plus 1.00% to age 65
LT-5(65) Benefit Program:	1.25% for life, plus 0.75% to age 65
LT-8(65) Benefit Program:	1.50% for life, plus 0.50% to age 65
LT-14(65) Benefit Program:	1.75% for life, plus 0.25% to age 65

The only LT benefit programs available for adoption after August 1, 1994 are the LT(65) programs.

Benefit programs L-9 and LT-10(65) are unavailable for adoption after August 1, 2005.

Benefit program L-11, available only to groups not covered by social security, provides for 2.5% for life.

Subsequent to joining the System the governing body can elect to change benefit programs for the employees, but not more often than once every 2 years.

**Early Allowance.** Section 70.670. A member may retire with an early allowance after both (i) completing 5 years of credited service, and (ii) attaining age 55 if a general employee or age 50 if a police or fire employee.

The early allowance amount, payable monthly for life, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of early retirement, but reduced to reflect the fact that the age when payments begin is younger than the minimum service retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month the age at retirement is younger than the minimum service retirement age.

**Deferred Allowance.** Section 70.675. If a member leaves LAGERS-covered employment (i) before attaining the early retirement age, and (ii) after completing 5 years of credited service, the member becomes eligible for a deferred allowance; provided the former member lives to the minimum service retirement age and does not withdraw the accumulated contributions.

The deferred allowance amount, payable monthly for life from the minimum service retirement age, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of leaving LAGERS coverage.

Deferred allowances are also payable any time after reaching the early retirement age, with the reduction for early retirement noted on the previous page.

**Non-Duty Disability Allowance.** Section 70.680. A member with 5 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes becomes eligible to receive a non-duty disability allowance computed in the same manner as an age & service allowance, based upon the service & earnings record to time of disability.

**Duty Disability Allowance.** Section 70.680. A member regardless of credited service who becomes totally and permanently disabled from duty-connected causes becomes eligible to receive a duty disability allowance computed in the same manner as an age & service allowance, based upon the earnings record to time of disability but based upon the years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

**Death-in-Service.** Section 70.661. Upon the death of a member who had completed 5 years of credited service, the eligible surviving dependents receive the following benefits:

- (a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.
- (b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.
- (c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

**Benefit Changes After Retirement.** Section 70.655. For retirements effective after September 28, 1975, there is an annual redetermination of monthly benefit amount, beginning the October first following 12 months of retirement. As of each October first the amount of each eligible benefit is redetermined as follows:

- (a) Subject to the maximum in (b), the redetermined amount is the amount other-wise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.
- (b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

**Member Contributions.** Sections 70.690 & 70.705. Each member contributes 4% of compensation beginning after completion of sufficient employment for 6 months of credited service.

If a member leaves LAGERS-covered employment before an allowance is payable, the accumulated contributions are refunded to the member. If the member dies, his accumulated contributions are refunded to a designated beneficiary.

The law governing LAGERS also has a provision for the adoption of a non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 2 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

**Employer Contributions.** Section 70.730. Each employer contributes the remainder amounts necessary to finance the employees' participation in LAGERS. Contributions to LAGERS are determined based upon level-percent-of-payroll principles, so that contribution rates do not have to increase over decades of time.

## **APPENDIX IV**

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### **BENEFIT ILLUSTRATIONS**

# Missouri LAGERS

## Illustrations of Age and Service Allowance Amounts For Sample Combinations of Service & Salary (L-1 Benefit Program is Years of Credited Service times: 1.00% of FAS <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 525	\$ 889	\$1,414	94%
2,000	700	1,032	1,732	87%
2,500	875	1,175	2,050	82%
3,000	1,050	1,318	2,368	79%
3,500	1,225	1,462	2,687	77%
4,000	1,400	1,604	3,004	75%
25 Years of Service:				
\$1,500	\$ 375	\$ 889	\$1,264	84%
2,000	500	1,032	1,532	77%
2,500	625	1,175	1,800	72%
3,000	750	1,318	2,068	69%
3,500	875	1,462	2,337	67%
4,000	1,000	1,604	2,604	65%
15 Years of Service:				
\$1,500	\$225	\$ 889	\$1,114	74%
2,000	300	1,032	1,332	67%
2,500	375	1,175	1,550	62%
3,000	450	1,318	1,768	59%
3,500	525	1,462	1,987	57%
4,000	600	1,604	2,204	55%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(L-3 Benefit Program is Years of Credited Service**  
**times: 1.25% of FAS <sup>1</sup> )**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
25 Years of Service:				
\$1,500	\$ 469	\$ 889	\$1,358	91%
2,000	625	1,032	1,657	83%
2,500	781	1,175	1,956	78%
3,000	938	1,318	2,256	75%
3,500	1,094	1,462	2,556	73%
4,000	1,250	1,604	2,854	71%
15 Years of Service:				
\$1,500	\$281	\$ 889	\$1,170	78%
2,000	375	1,032	1,407	70%
2,500	469	1,175	1,644	66%
3,000	563	1,318	1,881	63%
3,500	656	1,462	2,118	61%
4,000	750	1,604	2,354	59%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
(L-7 Benefit Program is Years of Credited Service  
times: 1.50% of FAS <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 788	\$ 889	\$1,677	112%
2,000	1,050	1,032	2,082	104%
2,500	1,313	1,175	2,488	100%
3,000	1,575	1,318	2,893	96%
3,500	1,838	1,462	3,300	94%
4,000	2,100	1,604	3,704	93%
25 Years of Service:				
\$1,500	\$ 563	\$ 889	\$1,452	97%
2,000	750	1,032	1,782	89%
2,500	938	1,175	2,113	85%
3,000	1,125	1,318	2,443	81%
3,500	1,313	1,462	2,775	79%
4,000	1,500	1,604	3,104	78%
15 Years of Service:				
\$1,500	\$338	\$ 889	\$1,227	82%
2,000	450	1,032	1,482	74%
2,500	563	1,175	1,738	70%
3,000	675	1,318	1,993	66%
3,500	788	1,462	2,250	64%
4,000	900	1,604	2,504	63%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.



**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(L-12 Benefit Program is Years of Credited Service**  
**times: 1.75% of FAS <sup>1</sup> )**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$ 919	\$ 889	\$1,808	121%
2,000	1,225	1,032	2,257	113%
2,500	1,531	1,175	2,706	108%
3,000	1,838	1,318	3,156	105%
3,500	2,144	1,462	3,606	103%
4,000	2,450	1,604	4,054	101%
25 Years of Service:				
\$1,500	\$ 656	\$ 889	\$1,545	103%
2,000	875	1,032	1,907	95%
2,500	1,094	1,175	2,269	91%
3,000	1,313	1,318	2,631	88%
3,500	1,531	1,462	2,993	86%
4,000	1,750	1,604	3,354	84%
15 Years of Service:				
\$1,500	\$ 394	\$ 889	\$1,283	86%
2,000	525	1,032	1,557	78%
2,500	656	1,175	1,831	73%
3,000	788	1,318	2,106	70%
3,500	919	1,462	2,381	68%
4,000	1,050	1,604	2,654	66%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
(L-6 Benefit Program is Years of Credited Service  
times: 2.00% of FAS <sup>1</sup> )

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>	Estimated Social Security <sup>2</sup>	Estimated Monthly Total	
			\$	% of FAS
35 Years of Service:				
\$1,500	\$1,050	\$ 889	\$1,939	129%
2,000	1,400	1,032	2,432	122%
2,500	1,750	1,175	2,925	117%
3,000	2,100	1,318	3,418	114%
3,500	2,450	1,462	3,912	112%
4,000	2,800	1,604	4,404	110%
25 Years of Service:				
\$1,500	\$ 750	\$ 889	\$1,639	109%
2,000	1,000	1,032	2,032	102%
2,500	1,250	1,175	2,425	97%
3,000	1,500	1,318	2,818	94%
3,500	1,750	1,462	3,212	92%
4,000	2,000	1,604	3,604	90%
15 Years of Service:				
\$1,500	\$ 450	\$ 889	\$1,339	89%
2,000	600	1,032	1,632	82%
2,500	750	1,175	1,925	77%
3,000	900	1,318	2,218	74%
3,500	1,050	1,462	2,512	72%
4,000	1,200	1,604	2,804	70%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(LT-4(65) Benefit Program is Years of Credited Service**  
**times: 2.00% of FAS <sup>1</sup> to age 65)**  
**1.00% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 525	\$ 889	\$1,050	\$1,414	70%	94%
2,000	1,400	700	1,032	1,400	1,732	70%	87%
2,500	1,750	875	1,175	1,750	2,050	70%	82%
3,000	2,100	1,050	1,318	2,100	2,368	70%	79%
3,500	2,450	1,225	1,462	2,450	2,687	70%	77%
4,000	2,800	1,400	1,604	2,800	3,004	70%	75%
25 Years of Service:							
\$1,500	\$ 750	\$ 375	\$ 889	\$ 750	\$1,264	50%	84%
2,000	1,000	500	1,032	1,000	1,532	50%	77%
2,500	1,250	625	1,175	1,250	1,800	50%	72%
3,000	1,500	750	1,318	1,500	2,068	50%	69%
3,500	1,750	875	1,462	1,750	2,337	50%	67%
4,000	2,000	1,000	1,604	2,000	2,604	50%	65%
15 Years of Service:							
\$1,500	\$ 450	\$225	\$ 889	\$ 450	\$1,114	30%	74%
2,000	600	300	1,032	600	1,332	30%	67%
2,500	750	375	1,175	750	1,550	30%	62%
3,000	900	450	1,318	900	1,768	30%	59%
3,500	1,050	525	1,462	1,050	1,987	30%	57%
4,000	1,200	600	1,604	1,200	2,204	30%	55%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(LT-5(65) Benefit Program is Years of Credited Service**  
**times: 2.00% of FAS <sup>1</sup> to age 65)**  
**1.25% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 656	\$ 889	\$1,050	\$1,545	70%	103%
2,000	1,400	875	1,032	1,400	1,907	70%	95%
2,500	1,750	1,094	1,175	1,750	2,269	70%	91%
3,000	2,100	1,313	1,318	2,100	2,631	70%	88%
3,500	2,450	1,531	1,462	2,450	2,993	70%	86%
4,000	2,800	1,750	1,604	2,800	3,354	70%	84%
25 Years of Service:							
\$1,500	\$ 750	\$ 469	\$ 889	\$ 750	\$1,358	50%	91%
2,000	1,000	625	1,032	1,000	1,657	50%	83%
2,500	1,250	781	1,175	1,250	1,956	50%	78%
3,000	1,500	938	1,318	1,500	2,256	50%	75%
3,500	1,750	1,094	1,462	1,750	2,556	50%	73%
4,000	2,000	1,250	1,604	2,000	2,854	50%	71%
15 Years of Service:							
\$1,500	\$ 450	\$281	\$ 889	\$ 450	\$1,170	30%	78%
2,000	600	375	1,032	600	1,407	30%	70%
2,500	750	469	1,175	750	1,644	30%	66%
3,000	900	563	1,318	900	1,881	30%	63%
3,500	1,050	656	1,462	1,050	2,118	30%	61%
4,000	1,200	750	1,604	1,200	2,354	30%	59%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(LT-8(65) Benefit Program is Years of Credited Service**  
**times: 2.00% of FAS <sup>1</sup> to age 65)**  
**1.50% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 788	\$ 889	\$1,050	\$1,677	70%	112%
2,000	1,400	1,050	1,032	1,400	2,082	70%	104%
2,500	1,750	1,313	1,175	1,750	2,488	70%	100%
3,000	2,100	1,575	1,318	2,100	2,893	70%	96%
3,500	2,450	1,838	1,462	2,450	3,300	70%	94%
4,000	2,800	2,100	1,604	2,800	3,704	70%	93%
25 Years of Service:							
\$1,500	\$ 750	\$ 563	\$ 889	\$ 750	\$1,452	50%	97%
2,000	1,000	750	1,032	1,000	1,782	50%	89%
2,500	1,250	938	1,175	1,250	2,113	50%	85%
3,000	1,500	1,125	1,318	1,500	2,443	50%	81%
3,500	1,750	1,313	1,462	1,750	2,775	50%	79%
4,000	2,000	1,500	1,604	2,000	3,104	50%	78%
15 Years of Service:							
\$1,500	\$ 450	\$338	\$ 889	\$ 450	\$1,227	30%	82%
2,000	600	450	1,032	600	1,482	30%	74%
2,500	750	563	1,175	750	1,738	30%	70%
3,000	900	675	1,318	900	1,993	30%	66%
3,500	1,050	788	1,462	1,050	2,250	30%	64%
4,000	1,200	900	1,604	1,200	2,504	30%	63%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

**Missouri LAGERS**  
**Illustrations of Age and Service Allowance Amounts**  
**For Sample Combinations of Service & Salary**  
**(LT-14(65) Benefit Program is Years of Credited Service**  
**times: 2.00% of FAS <sup>1</sup> to age 65)**  
**1.75% of FAS <sup>1</sup> at age 65)**

Final Average Salary (FAS) <sup>1</sup>	LAGERS BENEFIT <sup>3</sup>		Estimated Social Security <sup>2</sup>	Estimated Monthly Total		Percent of FAS	
	To 65	At 65		To 65	At 65	To 65	At 65
35 Years of Service:							
\$1,500	\$1,050	\$ 919	\$ 889	\$1,050	\$1,808	70%	121%
2,000	1,400	1,225	1,032	1,400	2,257	70%	113%
2,500	1,750	1,531	1,175	1,750	2,706	70%	108%
3,000	2,100	1,838	1,318	2,100	3,156	70%	105%
3,500	2,450	2,144	1,462	2,450	3,606	70%	103%
4,000	2,800	2,450	1,604	2,800	4,054	70%	101%
25 Years of Service:							
\$1,500	\$ 750	\$ 656	\$ 889	\$ 750	\$1,545	50%	103%
2,000	1,000	875	1,032	1,000	1,907	50%	95%
2,500	1,250	1,094	1,175	1,250	2,269	50%	91%
3,000	1,500	1,313	1,318	1,500	2,631	50%	88%
3,500	1,750	1,531	1,462	1,750	2,993	50%	86%
4,000	2,000	1,750	1,604	2,000	3,354	50%	84%
15 Years of Service:							
\$1,500	\$ 450	\$ 394	\$ 889	\$ 450	\$1,283	30%	86%
2,000	600	525	1,032	600	1,557	30%	78%
2,500	750	656	1,175	750	1,831	30%	73%
3,000	900	788	1,318	900	2,106	30%	70%
3,500	1,050	919	1,462	1,050	2,381	30%	68%
4,000	1,200	1,050	1,604	1,200	2,654	30%	66%

<sup>1</sup> "Final Average Salary" means the monthly average of an employee's compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) when they were highest, contained within the last 120 months of Credited Service.

<sup>2</sup> "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit and is based upon an estimated "average indexed monthly earnings" for an employee retiring at age 65 in 2018 - it does not include any amounts which might be payable to an eligible spouse or children.

<sup>3</sup> Amounts are shown to nearest \$1, for simplicity; actual amounts are to nearest 1¢.

## **APPENDIX V**

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### **AGE AND SERVICE CHARACTERISTICS OF EMPLOYEES**

# Putnam County Soil and Water Conservation District

July 31, 2018

## By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
<b>Under 20</b>									
20-24									
25-29	1							1	\$ 32,136
30-34									
35-39									
40-44									
45-49		1						1	\$ 36,421
50-54									
55-59		1						1	\$ 38,563
60-64									
65-69									
<b>70 &amp; Over</b>									
<b>Totals</b>	<b>1</b>	<b>2</b>						<b>3</b>	<b>\$ 107,120</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 42.7 years.

Benefit Service: 0.0 years.

Annual Pay: \$35,707.



## **APPENDIX VI**

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### **RISK COMMENTARY**

# Risk Commentary

The determination of the accrued liability and the actuarially determined contribution (i.e., total employer contribution rate) requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan's future financial condition include:

1. **Investment Risk** – actual investment returns may differ from the expected returns;
2. **Asset/Liability Mismatch Risk** – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and contribution requirements;
3. **Contribution Risk** – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
4. **Salary and Payroll Risk** – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability, contributions and contribution rates differing from expected;
5. **Longevity Risk** – members may live longer or shorter than expected and receive pensions for a period of time other than assumed; and
6. **Other Demographic Risks** – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rates shown on pages 4 thru 11 may be considered as a minimum contribution rate for the selected benefit provisions that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

# Risk Commentary (Concluded)

## PLAN MATURITY MEASURES

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures are described below.

### **RATIO OF MARKET VALUE OF ASSETS TO PAYROLL**

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

### **RATIO OF ACTUARIAL ACCRUED LIABILITY TO PAYROLL**

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

### **RATIO OF NET CASH FLOW TO MARKET VALUE OF ASSETS**

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

### **DURATION OF ACTUARIAL ACCRUED LIABILITY**

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, duration of 10 indicates that the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

## ADDITIONAL RISK ASSESSMENT

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.



April 25, 2019 E-mail

Mr. Robert Wilson, Executive Secretary  
Missouri Local Government  
Employees Retirement System  
P.O. Box 1665  
Jefferson City, Missouri 65102

Dear Bob:

Enclosed is the report of the July 31, 2018 Initial Actuarial Valuation of LAGERS benefits for the employees of

Putnam County Soil and Water Conservation District

Sincerely,

A handwritten signature in black ink that reads "Mita Drazilov". The signature is written in a cursive, flowing style.

Mita D. Drazilov, ASA, FCA, MAAA

MDD:wp

April 25, 2019

Putnam County Soil and Water Conservation District  
Unionville, Missouri

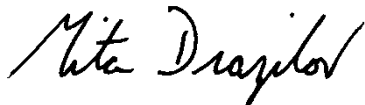
Ladies and Gentlemen:

This report contains projections needed to comply with Missouri state disclosure requirements (Section 105.660 of the RSMo) regarding the adoption of LAGERS benefits by a political subdivision. This report is intended to be a supplement to the July 31, 2018 Initial Valuation for the Putnam County Soil and Water Conservation District dated April 25, 2019.

The actuarial assumptions and methods used to determine the stated costs are described in Appendix II of the Initial Valuation Report. In our opinion, they do produce results which, in the aggregate, are reasonable. Additional miscellaneous and technical assumptions as well as disclosures required by the actuarial standards of practice may be found in the LAGERS Compiled Annual Actuarial Valuation report as of February 28, 2018.

Mita Drazilov is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein.

Respectfully submitted,



Mita D. Drazilov, ASA, FCA, MAAA

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Contributory Plan - 5 Year FAS)

(4% member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	4.4%	\$4,713	\$ 12,710	6.2%	\$6,641	\$ 16,952	5.1%	\$5,463	\$ 14,012
2019	110,601	4.4	4,866	12,884	6.2	6,857	17,184	5.1	5,641	14,204
2020	114,196	4.4	5,025	13,046	6.2	7,080	17,401	5.1	5,824	14,383
2021	117,907	4.4	5,188	13,195	6.2	7,310	17,600	5.1	6,013	14,547
2022	121,739	4.4	5,357	13,329	6.2	7,548	17,779	5.1	6,209	14,695
2023	125,696	4.4	5,531	13,446	6.2	7,793	17,935	5.1	6,410	14,824
2024	129,781	4.4	5,710	13,544	6.2	8,046	18,066	5.1	6,619	14,932
2025	133,999	4.4	5,896	13,621	6.2	8,308	18,168	5.1	6,834	15,016
2026	138,354	4.4	6,088	13,674	6.2	8,578	18,238	5.1	7,056	15,074
2027	142,851	4.4	6,285	13,700	6.2	8,857	18,273	5.1	7,285	15,103

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	6.8%	\$7,284	\$ 17,945	7.8%	\$8,355	\$ 21,208	8.2%	\$8,784	\$ 21,870
2019	110,601	6.8	7,521	18,191	7.8	8,627	21,499	8.2	9,069	22,170
2020	114,196	6.8	7,765	18,420	7.8	8,907	21,770	8.2	9,364	22,450
2021	117,907	6.8	8,018	18,631	7.8	9,197	22,019	8.2	9,668	22,707
2022	121,739	6.8	8,278	18,820	7.8	9,496	22,243	8.2	9,983	22,938
2023	125,696	6.8	8,547	18,985	7.8	9,804	22,438	8.2	10,307	23,139
2024	129,781	6.8	8,825	19,123	7.8	10,123	22,601	8.2	10,642	23,308
2025	133,999	6.8	9,112	19,231	7.8	10,452	22,729	8.2	10,988	23,440
2026	138,354	6.8	9,408	19,305	7.8	10,792	22,817	8.2	11,345	23,531
2027	142,851	6.8	9,714	19,342	7.8	11,142	22,861	8.2	11,714	23,576

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	9.6%	\$10,284	\$ 25,491	9.8%	\$10,498	\$ 25,827	11.3%	\$12,105	\$ 29,816
2019	110,601	9.6	10,618	25,840	9.8	10,839	26,181	11.3	12,498	30,224
2020	114,196	9.6	10,963	26,166	9.8	11,191	26,511	11.3	12,904	30,605
2021	117,907	9.6	11,319	26,465	9.8	11,555	26,814	11.3	13,323	30,955
2022	121,739	9.6	11,687	26,734	9.8	11,930	27,086	11.3	13,757	31,270
2023	125,696	9.6	12,067	26,969	9.8	12,318	27,324	11.3	14,204	31,545
2024	129,781	9.6	12,459	27,165	9.8	12,719	27,523	11.3	14,665	31,775
2025	133,999	9.6	12,864	27,319	9.8	13,132	27,679	11.3	15,142	31,955
2026	138,354	9.6	13,282	27,425	9.8	13,559	27,786	11.3	15,634	32,079
2027	142,851	9.6	13,714	27,477	9.8	13,999	27,839	11.3	16,142	32,140

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	4.6%	\$4,928	\$ 13,258	6.4%	\$6,856	\$ 17,667	5.5%	\$5,892	\$ 14,623
2019	110,601	4.6	5,088	13,440	6.4	7,078	17,909	5.5	6,083	14,823
2020	114,196	4.6	5,253	13,609	6.4	7,309	18,135	5.5	6,281	15,010
2021	117,907	4.6	5,424	13,765	6.4	7,546	18,342	5.5	6,485	15,182
2022	121,739	4.6	5,600	13,905	6.4	7,791	18,528	5.5	6,696	15,336
2023	125,696	4.6	5,782	14,027	6.4	8,045	18,691	5.5	6,913	15,471
2024	129,781	4.6	5,970	14,129	6.4	8,306	18,827	5.5	7,138	15,584
2025	133,999	4.6	6,164	14,209	6.4	8,576	18,933	5.5	7,370	15,672
2026	138,354	4.6	6,364	14,264	6.4	8,855	19,006	5.5	7,609	15,733
2027	142,851	4.6	6,571	14,291	6.4	9,142	19,042	5.5	7,857	15,763

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	7.1%	\$7,606	\$ 18,693	8.2%	\$8,784	\$ 22,087	8.5%	\$9,105	\$ 22,752
2019	110,601	7.1	7,853	18,949	8.2	9,069	22,390	8.5	9,401	23,064
2020	114,196	7.1	8,108	19,188	8.2	9,364	22,672	8.5	9,707	23,355
2021	117,907	7.1	8,371	19,407	8.2	9,668	22,931	8.5	10,022	23,622
2022	121,739	7.1	8,643	19,604	8.2	9,983	23,164	8.5	10,348	23,862
2023	125,696	7.1	8,924	19,776	8.2	10,307	23,367	8.5	10,684	24,072
2024	129,781	7.1	9,214	19,920	8.2	10,642	23,537	8.5	11,031	24,247
2025	133,999	7.1	9,514	20,033	8.2	10,988	23,670	8.5	11,390	24,384
2026	138,354	7.1	9,823	20,110	8.2	11,345	23,762	8.5	11,760	24,478
2027	142,851	7.1	10,142	20,148	8.2	11,714	23,807	8.5	12,142	24,525

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	9.9%	\$10,605	\$ 26,496	10.1%	\$10,819	\$ 26,852	11.7%	\$12,533	\$ 30,982
2019	110,601	9.9	10,949	26,859	10.1	11,171	27,220	11.7	12,940	31,406
2020	114,196	9.9	11,305	27,198	10.1	11,534	27,563	11.7	13,361	31,802
2021	117,907	9.9	11,673	27,509	10.1	11,909	27,878	11.7	13,795	32,166
2022	121,739	9.9	12,052	27,789	10.1	12,296	28,161	11.7	14,243	32,493
2023	125,696	9.9	12,444	28,033	10.1	12,695	28,408	11.7	14,706	32,778
2024	129,781	9.9	12,848	28,237	10.1	13,108	28,615	11.7	15,184	33,017
2025	133,999	9.9	13,266	28,397	10.1	13,534	28,777	11.7	15,678	33,204
2026	138,354	9.9	13,697	28,507	10.1	13,974	28,888	11.7	16,187	33,332
2027	142,851	9.9	14,142	28,561	10.1	14,428	28,943	11.7	16,714	33,396

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	8.0%	\$8,570	\$ 17,284	9.8%	\$10,498	\$ 21,609	8.8%	\$9,427	\$ 18,586
2019	110,601	8.0	8,848	17,521	9.8	10,839	21,905	8.8	9,733	18,841
2020	114,196	8.0	9,136	17,742	9.8	11,191	22,181	8.8	10,049	19,079
2021	117,907	8.0	9,433	17,945	9.8	11,555	22,435	8.8	10,376	19,297
2022	121,739	8.0	9,739	18,127	9.8	11,930	22,663	8.8	10,713	19,493
2023	125,696	8.0	10,056	18,286	9.8	12,318	22,862	8.8	11,061	19,664
2024	129,781	8.0	10,382	18,419	9.8	12,719	23,029	8.8	11,421	19,807
2025	133,999	8.0	10,720	18,523	9.8	13,132	23,159	8.8	11,792	19,919
2026	138,354	8.0	11,068	18,595	9.8	13,559	23,249	8.8	12,175	19,996
2027	142,851	8.0	11,428	18,631	9.8	13,999	23,293	8.8	12,571	20,034

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 107,120	10.4%	\$11,140	\$ 22,584	11.5%	\$12,319	\$ 25,934	11.9%	\$12,747	\$ 26,580
2019	110,601	10.4	11,503	22,893	11.5	12,719	26,289	11.9	13,162	26,944
2020	114,196	10.4	11,876	23,182	11.5	13,133	26,620	11.9	13,589	27,284
2021	117,907	10.4	12,262	23,447	11.5	13,559	26,924	11.9	14,031	27,596
2022	121,739	10.4	12,661	23,685	11.5	14,000	27,198	11.9	14,487	27,876
2023	125,696	10.4	13,072	23,893	11.5	14,455	27,437	11.9	14,958	28,121
2024	129,781	10.4	13,497	24,067	11.5	14,925	27,637	11.9	15,444	28,326
2025	133,999	10.4	13,936	24,203	11.5	15,410	27,793	11.9	15,946	28,486
2026	138,354	10.4	14,389	24,297	11.5	15,911	27,900	11.9	16,464	28,596
2027	142,851	10.4	14,857	24,343	11.5	16,428	27,953	11.9	16,999	28,651

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 107,120	13.3%	\$14,247	\$ 30,254	13.5%	\$14,461	\$ 30,586	15.1%	\$16,175	\$ 34,579
2019	110,601	13.3	14,710	30,668	13.5	14,931	31,005	15.1	16,701	35,053
2020	114,196	13.3	15,188	31,055	13.5	15,416	31,396	15.1	17,244	35,495
2021	117,907	13.3	15,682	31,410	13.5	15,917	31,755	15.1	17,804	35,901
2022	121,739	13.3	16,191	31,729	13.5	16,435	32,078	15.1	18,383	36,266
2023	125,696	13.3	16,718	32,008	13.5	16,969	32,360	15.1	18,980	36,585
2024	129,781	13.3	17,261	32,241	13.5	17,520	32,596	15.1	19,597	36,851
2025	133,999	13.3	17,822	32,423	13.5	18,090	32,780	15.1	20,234	37,059
2026	138,354	13.3	18,401	32,548	13.5	18,678	32,907	15.1	20,891	37,202
2027	142,851	13.3	18,999	32,610	13.5	19,285	32,970	15.1	21,571	37,273

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.



# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

### Regular Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	8.2%	\$8,784	\$ 17,869	10.1%	\$10,819	\$ 22,368	9.0%	\$9,641	\$ 19,223
2019	110,601	8.2	9,069	18,114	10.1	11,171	22,674	9.0	9,954	19,486
2020	114,196	8.2	9,364	18,342	10.1	11,534	22,960	9.0	10,278	19,732
2021	117,907	8.2	9,668	18,552	10.1	11,909	23,223	9.0	10,612	19,958
2022	121,739	8.2	9,983	18,741	10.1	12,296	23,459	9.0	10,957	20,161
2023	125,696	8.2	10,307	18,906	10.1	12,695	23,665	9.0	11,313	20,338
2024	129,781	8.2	10,642	19,044	10.1	13,108	23,837	9.0	11,680	20,486
2025	133,999	8.2	10,988	19,152	10.1	13,534	23,972	9.0	12,060	20,602
2026	138,354	8.2	11,345	19,226	10.1	13,974	24,065	9.0	12,452	20,682
2027	142,851	8.2	11,714	19,263	10.1	14,428	24,111	9.0	12,857	20,721

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	10.7%	\$11,462	\$ 23,373	11.9%	\$12,747	\$ 26,791	12.3%	\$13,176	\$ 27,483
2019	110,601	10.7	11,834	23,693	11.9	13,162	27,158	12.3	13,604	27,860
2020	114,196	10.7	12,219	23,992	11.9	13,589	27,500	12.3	14,046	28,211
2021	117,907	10.7	12,616	24,266	11.9	14,031	27,814	12.3	14,503	28,534
2022	121,739	10.7	13,026	24,513	11.9	14,487	28,097	12.3	14,974	28,824
2023	125,696	10.7	13,449	24,728	11.9	14,958	28,344	12.3	15,461	29,077
2024	129,781	10.7	13,887	24,908	11.9	15,444	28,550	12.3	15,963	29,289
2025	133,999	10.7	14,338	25,049	11.9	15,946	28,711	12.3	16,482	29,455
2026	138,354	10.7	14,804	25,146	11.9	16,464	28,822	12.3	17,018	29,569
2027	142,851	10.7	15,285	25,194	11.9	16,999	28,877	12.3	17,571	29,625

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	13.8%	\$14,783	\$ 31,276	14.0%	\$14,997	\$ 31,614	15.6%	\$16,711	\$ 35,750
2019	110,601	13.8	15,263	31,704	14.0	15,484	32,047	15.6	17,254	36,240
2020	114,196	13.8	15,759	32,104	14.0	15,987	32,451	15.6	17,815	36,697
2021	117,907	13.8	16,271	32,471	14.0	16,507	32,822	15.6	18,393	37,117
2022	121,739	13.8	16,800	32,801	14.0	17,043	33,156	15.6	18,991	37,494
2023	125,696	13.8	17,346	33,089	14.0	17,597	33,447	15.6	19,609	37,823
2024	129,781	13.8	17,910	33,330	14.0	18,169	33,691	15.6	20,246	38,099
2025	133,999	13.8	18,492	33,518	14.0	18,760	33,881	15.6	20,904	38,314
2026	138,354	13.8	19,093	33,648	14.0	19,370	34,012	15.6	21,583	38,462
2027	142,851	13.8	19,713	33,712	14.0	19,999	34,077	15.6	22,285	38,535

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Contributory Plan - 5 Year FAS) (4% member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	4.6%	\$4,928	\$ 13,149	6.4%	\$6,856	\$ 17,500	5.7%	\$6,106	\$ 15,020
2019	110,601	4.6	5,088	13,329	6.4	7,078	17,740	5.7	6,304	15,226
2020	114,196	4.6	5,253	13,497	6.4	7,309	17,964	5.7	6,509	15,418
2021	117,907	4.6	5,424	13,651	6.4	7,546	18,169	5.7	6,721	15,594
2022	121,739	4.6	5,600	13,790	6.4	7,791	18,354	5.7	6,939	15,752
2023	125,696	4.6	5,782	13,911	6.4	8,045	18,515	5.7	7,165	15,890
2024	129,781	4.6	5,970	14,012	6.4	8,306	18,650	5.7	7,398	16,006
2025	133,999	4.6	6,164	14,091	6.4	8,576	18,755	5.7	7,638	16,096
2026	138,354	4.6	6,364	14,145	6.4	8,855	18,828	5.7	7,886	16,158
2027	142,851	4.6	6,571	14,172	6.4	9,142	18,864	5.7	8,143	16,189

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	7.2%	\$7,713	\$ 18,929	8.2%	\$8,784	\$ 21,854	8.6%	\$9,212	\$ 22,800
2019	110,601	7.2	7,963	19,188	8.2	9,069	22,153	8.6	9,512	23,112
2020	114,196	7.2	8,222	19,430	8.2	9,364	22,432	8.6	9,821	23,403
2021	117,907	7.2	8,489	19,652	8.2	9,668	22,688	8.6	10,140	23,671
2022	121,739	7.2	8,765	19,852	8.2	9,983	22,919	8.6	10,470	23,912
2023	125,696	7.2	9,050	20,026	8.2	10,307	23,120	8.6	10,810	24,122
2024	129,781	7.2	9,344	20,172	8.2	10,642	23,288	8.6	11,161	24,298
2025	133,999	7.2	9,648	20,286	8.2	10,988	23,420	8.6	11,524	24,435
2026	138,354	7.2	9,961	20,364	8.2	11,345	23,511	8.6	11,898	24,529
2027	142,851	7.2	10,285	20,403	8.2	11,714	23,556	8.6	12,285	24,576

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability	As a % of Payroll	Annual Dollars	Accrued Liability
2018	\$ 107,120	9.9%	\$10,605	\$ 26,243	10.2%	\$10,926	\$ 26,730	11.7%	\$12,533	\$ 30,667
2019	110,601	9.9	10,949	26,603	10.2	11,281	27,096	11.7	12,940	31,087
2020	114,196	9.9	11,305	26,938	10.2	11,648	27,438	11.7	13,361	31,479
2021	117,907	9.9	11,673	27,246	10.2	12,027	27,752	11.7	13,795	31,839
2022	121,739	9.9	12,052	27,523	10.2	12,417	28,034	11.7	14,243	32,163
2023	125,696	9.9	12,444	27,765	10.2	12,821	28,280	11.7	14,706	32,445
2024	129,781	9.9	12,848	27,967	10.2	13,238	28,486	11.7	15,184	32,681
2025	133,999	9.9	13,266	28,125	10.2	13,668	28,647	11.7	15,678	32,866
2026	138,354	9.9	13,697	28,234	10.2	14,112	28,758	11.7	16,187	32,993
2027	142,851	9.9	14,142	28,288	10.2	14,571	28,813	11.7	16,714	33,056

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Contributory Plan - 3 Year FAS)

(4% member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	4.8%	\$5,142	\$ 13,711	6.7%	\$7,177	\$ 18,232	5.9%	\$6,320	\$ 15,663
2019	110,601	4.8	5,309	13,899	6.7	7,410	18,482	5.9	6,525	15,878
2020	114,196	4.8	5,481	14,074	6.7	7,651	18,715	5.9	6,738	16,078
2021	117,907	4.8	5,660	14,235	6.7	7,900	18,929	5.9	6,957	16,262
2022	121,739	4.8	5,843	14,380	6.7	8,157	19,121	5.9	7,183	16,427
2023	125,696	4.8	6,033	14,506	6.7	8,422	19,289	5.9	7,416	16,571
2024	129,781	4.8	6,229	14,612	6.7	8,695	19,430	5.9	7,657	16,692
2025	133,999	4.8	6,432	14,695	6.7	8,978	19,540	5.9	7,906	16,786
2026	138,354	4.8	6,641	14,752	6.7	9,270	19,616	5.9	8,163	16,851
2027	142,851	4.8	6,857	14,780	6.7	9,571	19,653	5.9	8,428	16,883

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	7.5%	\$8,034	\$ 19,702	8.5%	\$9,105	\$ 22,762	9.1%	\$9,748	\$ 23,731
2019	110,601	7.5	8,295	19,972	8.5	9,401	23,074	9.1	10,065	24,056
2020	114,196	7.5	8,565	20,224	8.5	9,707	23,365	9.1	10,392	24,359
2021	117,907	7.5	8,843	20,455	8.5	10,022	23,632	9.1	10,730	24,637
2022	121,739	7.5	9,130	20,663	8.5	10,348	23,872	9.1	11,078	24,887
2023	125,696	7.5	9,427	20,844	8.5	10,684	24,082	9.1	11,438	25,106
2024	129,781	7.5	9,734	20,996	8.5	11,031	24,257	9.1	11,810	25,289
2025	133,999	7.5	10,050	21,115	8.5	11,390	24,394	9.1	12,194	25,432
2026	138,354	7.5	10,377	21,197	8.5	11,760	24,488	9.1	12,590	25,530
2027	142,851	7.5	10,714	21,237	8.5	12,142	24,535	9.1	12,999	25,579

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	10.3%	\$11,033	\$ 27,284	10.6%	\$11,355	\$ 27,782	12.2%	\$13,069	\$ 31,866
2019	110,601	10.3	11,392	27,658	10.6	11,724	28,163	12.2	13,493	32,303
2020	114,196	10.3	11,762	28,007	10.6	12,105	28,518	12.2	13,932	32,710
2021	117,907	10.3	12,144	28,327	10.6	12,498	28,844	12.2	14,385	33,084
2022	121,739	10.3	12,539	28,615	10.6	12,904	29,137	12.2	14,852	33,420
2023	125,696	10.3	12,947	28,866	10.6	13,324	29,393	12.2	15,335	33,714
2024	129,781	10.3	13,367	29,076	10.6	13,757	29,607	12.2	15,833	33,960
2025	133,999	10.3	13,802	29,240	10.6	14,204	29,774	12.2	16,348	34,152
2026	138,354	10.3	14,250	29,353	10.6	14,666	29,889	12.2	16,879	34,284
2027	142,851	10.3	14,714	29,409	10.6	15,142	29,946	12.2	17,428	34,349

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Non-Contributory Plan - 5 Year FAS)

(0% member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	8.1%	\$8,677	\$ 17,692	10.1%	\$10,819	\$ 22,109	9.2%	\$9,855	\$ 19,568
2019	110,601	8.1	8,959	17,934	10.1	11,171	22,412	9.2	10,175	19,836
2020	114,196	8.1	9,250	18,160	10.1	11,534	22,695	9.2	10,506	20,086
2021	117,907	8.1	9,550	18,368	10.1	11,909	22,954	9.2	10,847	20,316
2022	121,739	8.1	9,861	18,555	10.1	12,296	23,187	9.2	11,200	20,522
2023	125,696	8.1	10,181	18,718	10.1	12,695	23,391	9.2	11,564	20,702
2024	129,781	8.1	10,512	18,854	10.1	13,108	23,561	9.2	11,940	20,853
2025	133,999	8.1	10,854	18,961	10.1	13,534	23,694	9.2	12,328	20,971
2026	138,354	8.1	11,207	19,034	10.1	13,974	23,786	9.2	12,729	21,052
2027	142,851	8.1	11,571	19,070	10.1	14,428	23,831	9.2	13,142	21,092

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 107,120	10.8%	\$11,569	\$ 23,517	11.8%	\$12,640	\$ 26,525	12.4%	\$13,283	\$ 27,463
2019	110,601	10.8	11,945	23,839	11.8	13,051	26,888	12.4	13,715	27,839
2020	114,196	10.8	12,333	24,140	11.8	13,475	27,227	12.4	14,160	28,190
2021	117,907	10.8	12,734	24,416	11.8	13,913	27,538	12.4	14,620	28,512
2022	121,739	10.8	13,148	24,664	11.8	14,365	27,818	12.4	15,096	28,802
2023	125,696	10.8	13,575	24,881	11.8	14,832	28,062	12.4	15,586	29,055
2024	129,781	10.8	14,016	25,062	11.8	15,314	28,266	12.4	16,093	29,267
2025	133,999	10.8	14,472	25,204	11.8	15,812	28,426	12.4	16,616	29,432
2026	138,354	10.8	14,942	25,301	11.8	16,326	28,536	12.4	17,156	29,546
2027	142,851	10.8	15,428	25,349	11.8	16,856	28,590	12.4	17,714	29,602

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a % of	Annual	Accrued	As a % of	Annual	Accrued	As a % of	Annual	Accrued
		Payroll	Dollars	Liability	Payroll	Dollars	Liability	Payroll	Dollars	Liability
2018	\$ 107,120	13.6%	\$14,568	\$ 30,955	14.0%	\$14,997	\$ 31,428	15.6%	\$16,711	\$ 35,388
2019	110,601	13.6	15,042	31,379	14.0	15,484	31,859	15.6	17,254	35,873
2020	114,196	13.6	15,531	31,775	14.0	15,987	32,261	15.6	17,815	36,325
2021	117,907	13.6	16,035	32,138	14.0	16,507	32,630	15.6	18,393	36,740
2022	121,739	13.6	16,557	32,465	14.0	17,043	32,962	15.6	18,991	37,113
2023	125,696	13.6	17,095	32,750	14.0	17,597	33,251	15.6	19,609	37,439
2024	129,781	13.6	17,650	32,989	14.0	18,169	33,493	15.6	20,246	37,712
2025	133,999	13.6	18,224	33,175	14.0	18,760	33,682	15.6	20,904	37,925
2026	138,354	13.6	18,816	33,303	14.0	19,370	33,812	15.6	21,583	38,072
2027	142,851	13.6	19,428	33,367	14.0	19,999	33,877	15.6	22,285	38,145

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.

# Putnam County Soil and Water Conservation District - General

## Employer Contribution Rates (Non-Contributory Plan - 3 Year FAS)

(0% member contributions are additional)

### Rule of 80 Retirement Eligibility

Valuation Year	Estimated Projected Payroll	L-1 Benefit Program			L-3 Benefit Program			LT-4(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	8.5%	\$9,105	\$ 18,284	10.3%	\$11,033	\$ 22,873	9.5%	\$10,176	\$ 20,222
2019	110,601	8.5	9,401	18,534	10.3	11,392	23,186	9.5	10,507	20,499
2020	114,196	8.5	9,707	18,768	10.3	11,762	23,478	9.5	10,849	20,757
2021	117,907	8.5	10,022	18,983	10.3	12,144	23,746	9.5	11,201	20,994
2022	121,739	8.5	10,348	19,176	10.3	12,539	23,987	9.5	11,565	21,207
2023	125,696	8.5	10,684	19,344	10.3	12,947	24,198	9.5	11,941	21,393
2024	129,781	8.5	11,031	19,485	10.3	13,367	24,374	9.5	12,329	21,549
2025	133,999	8.5	11,390	19,595	10.3	13,802	24,512	9.5	12,730	21,671
2026	138,354	8.5	11,760	19,671	10.3	14,250	24,607	9.5	13,144	21,755
2027	142,851	8.5	12,142	19,709	10.3	14,714	24,654	9.5	13,571	21,797

Valuation Year	Estimated Projected Payroll	LT-5(65) Benefit Program			L-7 Benefit Program			LT-8(65) Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	11.2%	\$11,997	\$ 24,321	12.2%	\$13,069	\$ 27,428	12.7%	\$13,604	\$ 28,421
2019	110,601	11.2	12,387	24,654	12.2	13,493	27,804	12.7	14,046	28,810
2020	114,196	11.2	12,790	24,965	12.2	13,932	28,155	12.7	14,503	29,173
2021	117,907	11.2	13,206	25,250	12.2	14,385	28,477	12.7	14,974	29,507
2022	121,739	11.2	13,635	25,507	12.2	14,852	28,766	12.7	15,461	29,807
2023	125,696	11.2	14,078	25,731	12.2	15,335	29,019	12.7	15,963	30,069
2024	129,781	11.2	14,535	25,918	12.2	15,833	29,230	12.7	16,482	30,288
2025	133,999	11.2	15,008	26,064	12.2	16,348	29,395	12.7	17,018	30,459
2026	138,354	11.2	15,496	26,165	12.2	16,879	29,509	12.7	17,571	30,577
2027	142,851	11.2	15,999	26,215	12.2	17,428	29,565	12.7	18,142	30,635

Valuation Year	Estimated Projected Payroll	L-12 Benefit Program			LT-14(65) Benefit Program			L-6 Benefit Program		
		Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial	Estimated Employer Contribution		Unfunded Actuarial
		As a %	Annual	Accrued	As a %	Annual	Accrued	As a %	Annual	Accrued
		of Payroll	Dollars	Liability	of Payroll	Dollars	Liability	of Payroll	Dollars	Liability
2018	\$ 107,120	14.1%	\$15,104	\$ 32,006	14.4%	\$15,425	\$ 32,503	16.0%	\$17,139	\$ 36,575
2019	110,601	14.1	15,595	32,444	14.4	15,927	32,948	16.0	17,696	37,076
2020	114,196	14.1	16,102	32,853	14.4	16,444	33,363	16.0	18,271	37,544
2021	117,907	14.1	16,625	33,229	14.4	16,979	33,744	16.0	18,865	37,973
2022	121,739	14.1	17,165	33,567	14.4	17,530	34,087	16.0	19,478	38,359
2023	125,696	14.1	17,723	33,862	14.4	18,100	34,386	16.0	20,111	38,696
2024	129,781	14.1	18,299	34,109	14.4	18,688	34,636	16.0	20,765	38,978
2025	133,999	14.1	18,894	34,302	14.4	19,296	34,832	16.0	21,440	39,198
2026	138,354	14.1	19,508	34,435	14.4	19,923	34,967	16.0	22,137	39,350
2027	142,851	14.1	20,142	34,501	14.4	20,571	35,034	16.0	22,856	39,425

Notes regarding the above projections:

- 1) The purpose of the above projections is to comply with the requirements of Section 105.660 of the Revised Statutes of Missouri (RSMo). The projection results may not be applicable for other purposes.
- 2) Estimated projected payroll is based upon the valuation payroll, increased each future year by 3.25%.
- 3) Due to the estimated nature of the above projections, certain but not all aspects of the Missouri LAGERS funding policy have been incorporated in the above projections.
- 4) Differences between the date of the initial valuation and the actuarial valuation date of February 28<sup>th</sup> have not been incorporated in the above results.
- 5) The actual employer contribution rates for future valuation dates will be based upon actual data as of the future valuation date.